



**TRANS-LAKE WASHINGTON PROJECT  
TECHNICAL COMMITTEE  
MUSEUM OF HISTORY AND INDUSTRY, SEATTLE, WA  
DECEMBER 12, 2001 — 9:00 A.M. — 12:00 P.M.**

The Technical Committee of the Trans-Lake Washington Project met on December 12, 2001. Discussion focused on the identification of alternatives to move forward into the project EIS, and feedback was sought on roadway and high-capacity transit (HCT) alternatives specifically. All input received will be provided to the Advisory and Executive Committees as they reach their own recommendations on the EIS alternatives. Technical Committee members not present on December 12 are encouraged to provide specific feedback to the project team as soon as possible so that it can be included in the material provided to the other committees.

Of the 15 representatives present, there were the following general levels of agreement:

- There was near unanimity on the inclusion of a substantial TDM investment, with pricing, in the EIS. Pricing should be considered on a regional basis, but applicable to the SR 520 corridor. Some support was expressed for an “adaptive management” approach, where TDM effectiveness is monitored and adjusted as experience is gained on relative effectiveness of different tools.
- There was broad support for adding HCT on SR 520, in the form of a combined HOV/BRT system with direct access. This would be combined with retaining Sound Transit’s current long-term vision for fixed-guideway transit in the I-90 corridor. There was some support for changing that vision to fixed-guideway HCT on SR 520 along with the fixed-guideway HCT on I-90. Several people spoke in favor of not precluding long-term potential for fixed-guideway transit in the SR 520 corridor.
- There was unanimous support for analyzing a 4-lane alternative in the EIS.
- There was unanimous support for analyzing a 6-lane alternative in the EIS.
- Support for analyzing an 8-lane alternative in the EIS was mixed, roughly evenly as pertains to the currently defined 8-lane alternatives. Some support emerged for a different version; perhaps a “2+2” concept with 2 general purpose lanes and 2 managed lanes, or an 8-lane facility across the lake that narrowed to 6 lanes on the west side. In this concept, as the bridge connects to the land side, 2 lanes would become an elevated fixed guide-way HCT in a 6-lane footprint.
- There was considerable support for lids, though primarily of limited size and without ventilation. A number of participants were neutral on lids; there was limited support for exploring larger, ventilated lids on a case-by-case basis.

Features of any alternative that were expressed as givens included bike and pedestrian facilities, noise mitigation, arterial/collector improvements, and environmental mitigation.

Input received from each attendee is summarized below.

## **TECHNICAL COMMITTEE FEEDBACK**

### **Terry Marpert, City of Redmond**

- Make it clear that the SR 520 bicycle/pedestrian facilities would extend to SR 202.
- The TDM analysis is currently at a disappointingly low level. Support regional, incentive and priced-based TDM. For example, there should be a pricing system that would make it cost more for single occupancy vehicles to drive on the corridor than vans and buses.
- Recommends adding an elevated HCT fixed guideway on SR 520 and I-90. Adding an HCT fixed guideway on SR 520 should be a long-term improvement. Per the 'Sound Transit HCT Options report', BRT is clearly stated as having its own separate lane; however why is this recommendation not supported by Sound Transit? He recommends BRT in a fixed guideway as one possible type of HCT technology that should be considered; in addition to additional lanes of traffic.
- The fixed guideway could be elevated. Should look at HCT parallel to the bridge in an 8 lane width on the water, but elevate HCT in a 6-lane footprint on the land side.
- Supports EIS analysis of the 6-lane facility with an HOV lane in each direction.
- An 8-lane facility on the lake and 6-lane facility on the land should be studied.
- Advocates carrying the 4-lane and 6-lane alternatives into the EIS.
- Concerned about more street level congestion with buses operating in downtown Seattle should light rail operate exclusively in the tunnel. Where will the buses go without the transit tunnel?
- Lidding should be an integral part of alternatives. He is unsure of the size of the lid facilities, although the Points community should be able to add input. The lidding should be incorporated right from the start of the environmental review. He would like to add lidding in areas along the corridor, sized so as not to require ventilation.
- Does not support an 8-lane facility with general-purpose capacity added.

### **King Cushman, Puget Sound Regional Council**

- Suggests that TDM analysis be tailored to fit the alternatives.
- Should include HOV and BRT.
- Advocates adding fixed guideway on I-90.
- Recommends the 4-lane and 6-lane alternatives for the EIS. The 6-lane HOV/BRT hybrid should be carried further into the EIS analysis.
- Due to added impacts on local communities, the 8-lane facility should be dropped from further analysis.
- Would like to incorporate non-ventilated lids at a minimum in order to reconnect the communities. He is wary of lid operational costs.
- Project should begin to coordinate with Elevated Transit Company's evaluation of potential routes for monorail in Seattle to determine potential linkages and benefits for the Trans-Lake solution.

### **Jonathan Freedman, EPA**

- Supports the most aggressive TDM program. The TDM program should look at regional pricing, including I-405.
- TDM should also include careful monitoring and have a 'feedback loop' so that we can adjust later and do more of what works well, and less with what doesn't. TDM benefits might be underestimated since so many of the commuters are "targeted" or going to the same several destinations/activity centers as opposed to 405 where origins and destinations are much more dispersed and there is a lot of through traffic. A focused effort on those targets might yield surprisingly high TDM results on SR 520. Also, we not only support pricing, we support it as a regional concept, integrating efforts on SR 520 with those on I-405 and elsewhere, and making it part of a regional effort. The regional look by far makes the most sense.
- The EPA would strongly advocate that no construction (not no-action) alternatives like TDM, pricing, land use measures etc., are employed as first steps (least cost – least damage steps) to try and before construction options are done. The ultimate goal would be to see if they eliminate or reduce the need for all the proposed construction.
- Would like a comparative analysis of the 4, 6, and 8-lane alternatives in the EIS. (However, upon further reflection, we would support the latter as an alternative only if two lanes each way were considered in the EIS for HOV, transit, or at least some type of lane management like peak-hour HOV requirement).
- If BRT eliminates the future possibility of HCT on SR 520, then he doesn't support carrying the BRT option forward. (I would say the same of HCT too.)
- Acknowledge Sound Transit's conclusions that HCT seems to work better on I-90
- Neutral on the lidding improvements to reduce noise. We however strongly support lidding to better connect, or prevent separation of, communities, acknowledging that fiscal constraints are a challenge.
- Second another member's comment that bike lanes connect with existing and planned biking facilities on east side out to the eastern terminus of 520 (and on the west side).

### **Len Newstrom, Town of Yarrow Point**

- He has another alternative that he would like added. In summary, this would be to make concrete structures for SR 520 HCT to be built in the future. He would like to explore using the Japanese high HCT and the low speed urban mag lev technologies. Suggests looking at the Lockheed Martin Company demonstration as a model for SR 520.
- In favor of TDM with the use of pricing incentives. The I-405 adaptive management should be looked at for the TDM program. He supports giving money to whoever is administering the TDM program, monitoring effectiveness and eliminating measures that don't work.
- Supports adding HOV lanes on SR 520.
- Supports the addition of HOV/BRT on I-90; in essence it currently is on I-90.
- He would not place BRT on SR 520 and promotes an HCT elevated fixed guideway (not the Sound Transit light rail) for SR 520.
- Advocates carrying the 4 and 6-lane alternatives forward.
- Does not support the 8-lane alternative. This could result in severe interchange difficulties and is too massive.

- Supportive of adding non-ventilated lids and noise walls. He would like to add 100 to 300-foot overpass/lidding improvements or to leave the existing overpasses as they are. The Points communities may encourage adding larger lids.

#### **Peter Dewey, University of Washington**

- Pricing should be included as an essential part of TDM.
- Supports adding the HOV/BRT lane combination on the SR 520 corridor. Should look further at integrating BRT and fixed guideway where it makes sense.
- Promotes the I-90 fixed guideway.
- The 4 and 6-lane facilities should be carried forward in environmental review. Shouldn't include the 8-lane alternative further due to local traffic impacts on neighborhoods and streets, and larger environmental impacts (Arboretum). The suggested Pacific Street tunnel over the Montlake cut for the 8-lane alternative if it includes general purpose traffic, is not the kind of access that the University of Washington supports.
- The University of Washington promotes transit and HOV improvements across SR 520.
- Larger than 400 feet lids should be considered in some areas.
- BRT should be included in environmental review and on SR 520. Would like fixed guideway preserved for the future.

#### **Helena Kennedy-Smith, WSDOT**

- Supports TDM. Personally approves looking at TDM pricing. Utilize specific TDM ideas from the I-405 project and preserve funding for the most effective options.
- Recommends fixed guideway on I-90 and BRT on SR 520.
- Study the 4 and 6-lane alternatives for the EIS.
- Look at the 8-lane alternative while taking into account the sensitivity analysis and difficulties. Doesn't strongly support the 8-lane alternative but knows that certain jurisdictions are advocating this option and that the addition of this in the EIS may help to inform the final decision.
- Passed on lidding comments.
- Supports enhanced transit.

#### **Joe Willis, Town of Hunts Point**

- Supports TDM incentives and pricing as a regional approach.
- Recommends HOV/BRT combination on SR 520.
- Advocates the fixed guideway on I-90, but not on SR 520.
- Promotes the 4 and 6-lane alternatives.
- Does not support the 8-lane facility.
- Supports lids without ventilation.
- Recommends careful analysis of the throughput due to the potential strains on the corridor.

#### **David Godfrey, City of Kirkland**

- Supports TDM and pricing strategies.

- Advocates BRT/HOV addition, although has difficulty accepting this as being combined. Has problems accepting busses being described as an HCT system for SR 520.
- Recommends fixed guideway on SR 520 and to not preclude this possibility for the future.
- Supports the 4 and 6-lane alternatives.
- Supports the 8-lane facility if it is a '2 plus 2 concept' (2 GP lanes plus 2 managed lanes).
- Advocates lids due to community connectivity improvements. Also supports noise walls.

#### **Bernard Van De Kamp, City of Bellevue**

- Supports TDM and pricing on a regional basis.
- Concurs with Sound Transit's recommendation to focus on fixed guideway for the I-90 corridor.
- Advocates HOV/BRT combination on SR 520 with a four-foot buffer for the HOV/BRT lanes.
- Recommends the 4 and 6-lane alternatives for the EIS.
- City of Bellevue strongly supports the 8-lane alternative due to added highway performance, benefits to communities, and lessening of city arterial impacts.
- Supports non-ventilated lids for additional community connectivity improvements. Does not support massive ventilated lids. Supports adding noise walls on the SR 520 corridor.

#### **Emily Teachout, U.S. Fish and Wildlife Service**

- Uncomfortable with the process of providing opinions on specific portions of the alternatives, hasn't seen the individual pieces evaluated.
- For concurrence, will have to do environmental analysis on specific alternatives.
- The 4 and 6-lane alternatives should be carried forward in the EIS.
- Supports the 8-lane analysis after seeing the condensed urbanization impacts and watershed monitoring planning benefits from the draft ESA indirect effects analysis.
- Recommends TDM for EIS analysis.
- Passed on HCT recommendations.
- Would like more analysis on the lids, especially on whether this could mitigate storm-water impacts.

#### **Eric Chipps for Susan Sanchez, City of Seattle**

- The Seattle City Council resolution does not support general purpose additions for the SR 520 corridor.
- The 8-lane facility may prevent sprawl on the eastside. Supports the 2 by 2 alternative (managed lanes), with a lane dropped at Montlake. Promotes HOV/bus carrying capability for the 8-lane alternative. Does not want general purpose capacity added to SR 520 with the 8-lane alternative.
- Supports fixed guideway on I-90. Doesn't want to preclude a fixed guideway on the SR 520 corridor. BRT/HOV shouldn't preclude HCT in the future.
- The 4 and 6-lane alternatives should go into the EIS.

- Supports Sound Transit's recommendation for I-90 light rail addition.
- Doesn't want to see project move forward without mitigating impacts from the existing facility.
- Should look at the impacts from a second crossing at the ship canal. Advocates the I-5 interchange options that lessen traffic on local streets. Shortening of the ramps should be analyzed in the EIS.
- Would like the right of way constrained as much as possible.
- TDM and pricing analysis should be done as a regional approach, including the Alaskan Way Viaduct project and local levels.
- Lids should be included because of the community connectivity improvements. Ventilated lids should be done on a case-by-case basis.

#### **Dave Kircher, Puget Sound Clean Air Agency**

- Supports TDM with non-commute trip concepts added.
- Would like the EIS to study ozone problems on the weekends.
- For HCT, would recommend HOV/BRT on SR 520 and a fixed guideway on I-90.
- Supports 4 and 6-lane alternatives.
- Does not support 8-lane alternative due to air quality impacts.
- Looking at non-ventilated lids makes the most sense.

#### **Mitch Wasserman, City of Clyde Hill**

- SR 520 users and those directly affected by the improvements need to see, experience and feel capacity and protection improvements to get notable support.
- For HCT to be successful on the SR 520 corridor it needs to demonstrate immediate benefits with convenient user access.
- HOV/BRT on SR 520 should function with a two-plus person carpool policy, rather than a three-plus person policy.
- For the long-term, the project should avoid making the same mistake of the past by not preserving right of way capacity for future HCT use. Fifty years ago right of way for an additional crossing across Lake Washington should have been preserved. Recommends fixed guideway initially on the I-90 corridor.
- Supports any roadway option and any lane addition (the 4, 6, and 8-lane facilities) that increases capacity in the corridor, as long as impacts are appropriately mitigated. Increased capacity in the corridor could help to mitigate Clyde Hill cut-through traffic.
- It would be easier and less expensive for the EIS analysis if specific lidding were linked to each of the alternatives going into the EIS process. Would also help the directly affected communities understand what each alternative would mean to them. Clyde Hill fears that the project will forget the importance of lidding to the affected communities if they go forward without an upfront linkage of lidding to each alternative in the EIS process.
- Clyde Hill is concerned about the placement of lid openings. Being uphill from the SR 520 facility, would like to lessen noise impacts with appropriately placed and sized lids beyond the 67bda limit.
- Believes some TDM should be included in the EIS but is disappointed by the modeling results given the needed effort and associated cost.

### **Jack Kennedy, U.S. Army Corps of Engineers**

- Supports the 4, 6, and 8-lane alternatives for the EIS.
- Effects to the aquatic environment and how this is analyzed in the EIS are main concerns. The EIS will address these issues.

### **Don Billen, Sound Transit**

- Transit ridership nationally is growing faster than vehicle miles traveled. Transit ridership may exceed models calibrated to past behavior.
- Sound Transit has been examining a range of transit alternatives. Although Sound Transit has advocated placing light rail across Lake Washington on I-90, the Trans-Lake process highlights the value of having high quality transit service on both I-90 and SR 520. Recommends fixed guideway on I-90 and HOV/BRT added on SR 520. The ST Long-Range Vision should be amended to add HOV/BRT to SR 520, in addition to a potential rail extension on I-90. Cost effectiveness shows that light rail should be added in the I-90 corridor, although it is important to have quality transit service in both corridors. Cost and value of SR 520 direct access connections should be looked at carefully in the EIS.
- We have heard interest in having fixed guideway transit across Lake Washington in two corridors in the very long-term. It wouldn't be a good use of resources to do project-level EIS work for an improvement to be built in more than 30 years. But, it is worth exploring how not preclude such a future project.